

POSSIBLE ASSOCIATION BETWEEN THE USE OF ZINC OXIDE IN PRE-STARTER FEED AND VEROCHECK

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BACKGROUND & OBJECTIVES

Oedema disease (OD) is an enterotoxaemia caused by the Verotoxin 2e (Vt2e) of *E. coli*¹. Zinc oxide (ZnO) is an inorganic compound commonly used in piglet feed for the prevention and control of post-weaning diarrhoea and OD². VEROCHECK^{3,4} is a new diagnostic tool for Vt2e DNA detection in oral fluids by quantitative PCR. The aim of this study was to evaluate the association between the use of ZnO as a treatment and the VEROCHECK results on farms with clinical OD.

MATERIALS AND METHODS

Samples from 57 farms with clinical OD from 9 European countries were analysed. Information about ZnO in feed as a prophylactic treatment, and clinical signs of the disease was provided with the VEROCHECK samples sent by the veterinarians responsible for the farms. A farm diagnosis based on VEROCHECK was considered to be positive when at least one of the samples was positive. A possible association between the use of zinc oxide in pre-starter feed and VEROCHECK results was studied by Chi-squared test.

RESULTS

Of the 57 farms, 32 were using ZnO and 56.3% of these farms showed positive results based on VEROCHECK. Of the farms not using ZnO, 25 (88%) were diagnosed as OD positive by VEROCHECK, *p-value* 0.021, as shown in Figure 1.

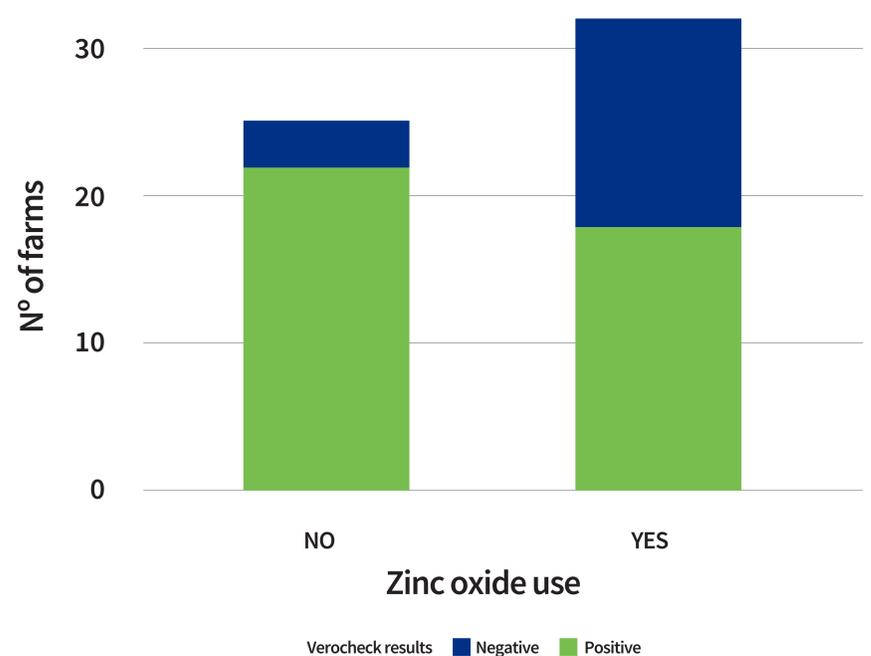


Figure 1. VEROCHECK results on use or non-use of zinc oxide on farms.

CONCLUSION

Statistically significant differences in OD diagnosis based on VEROCHECK results were found depending on the use or non-use of zinc oxide. The use of zinc oxide reduces the positivity detection by VEROCHECK in animals with clinical signs of OD.

REFERENCES

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